

What is claimed is:

1. An air intake comprising:  
a spike including a plurality of plates which are arranged axial  
symmetrically around a central axis thereof, and  
a cylindrical cowl having an inner wall parallel to said central axis and  
provided so as to enclose a rear portion of said spike via a given space,  
wherein adjacent ones of said plates form respective aerodynamic  
compressive surfaces in spaces formed by said adjacent ones, and the distances  
between said adjacent ones of said plates are variable, and the distance between a  
forefront of said spike along said central axis and said cowl is variable.
2. The air intake as defined in claim 1, wherein the surface areas of said  
plates are successively increased toward said cowl from said forefront of said  
spike.
3. The air intake as defined in claim 1, wherein when an air inflow is  
introduced into said air intake on the condition that the velocity of said air inflow  
is larger than a designed velocity of air inflow of said air intake, the distances  
between said adjacent ones of said plates are increased and the distance between  
said forefront of said spike and said cowl is increased.
4. The air intake as defined in claim 1, wherein when an air inflow is  
introduced into said air intake on the condition that the velocity of said air inflow  
is smaller than a designed velocity of air inflow of said air intake, the distances  
between said adjacent ones of said plates are decreased and the distance between  
said forefront of said spike and said cowl is decreased.
5. The air intake as defined in claim 1, wherein the relation of  $L/D \leq 1$  is  
satisfied if the depth and the width along said central axis of said spike of a space  
formed by said adjacent ones of said plates are defined as "D" and "W",  
respectively.
6. The air intake as defined in claim 5, wherein said  $L/D$  is set to 0.5 so  
that the pressure loss of said air inflow can be weakened.
7. The air intake as defined in claim 1, further comprising spacers  
between said adjacent ones of said plates of said spike.
8. The air intake as defined in claim 1, wherein said plates are provided  
outside from said cowl.

9. The air intake as defined in claim 1, further comprising a conical member at said forefront of said spike.

10. The air intake as defined in claim 1, wherein said plates are circular plates.

11. A method for breathing air using an air intake, comprising the steps of:

forming a spike composing of a plurality of plates which are arranged axial symmetrically around a central axis thereof and of which adjacent ones form respective aerodynamic compressive surfaces in spaces formed by said adjacent ones,

forming a cylindrical cowl having an inner wall parallel to said central axis and provided so as to enclose a rear portion of said spike via a given space,

controlling the distances between said adjacent ones of said plates, and

controlling the distance between a forefront of said spike along said central axis and said cowl.

12. The breathing method as defined in claim 11, wherein the surface areas of said plates are successively increased toward said cowl from said forefront of said spike.

13. The breathing method as defined in claim 11, wherein when an air inflow is introduced into said air intake on the condition that the velocity of said air inflow is larger than a designed velocity of air inflow of said air intake, the distances between said adjacent ones of said plates are increased and the distance between said forefront of said spike and said cowl is increased.

14. The breathing method as defined in claim 11, wherein when an air inflow is introduced into said air intake on the condition that the velocity of said air inflow is smaller than a designed velocity of air inflow of said air intake, the distances between said adjacent ones of said plates are decreased and the distance between said forefront of said spike and said cowl is decreased.

15. The breathing method as defined in claim 11, wherein the relation of  $L/D \leq 1$  is satisfied if the depth and the width along said central axis of said spike of a space formed by said adjacent ones of said plates are defined as "D" and "W", respectively.

16. The breathing method as defined in claim 15, wherein said  $L/D$  is set

to 0.5 so that the pressure loss of said air inflow can be weakened.

17. The breathing method as defined in claim 11, further comprising the step of forming spacers between said adjacent ones of said plates to control said L/D.

18. The breathing method as defined in claim 11, wherein said plates are provided outside from said cowl.

19. The breathing method as defined in claim 11, further comprising the step of forming a conical member at said forefront of said spike.

20. The breathing method as defined in claim 11, wherein said plates are circular plates.